

**REMARKS:**

Claims 2-11, 12-19, 21-28, and 30-36 are currently pending in the application. Claims 2-11, 12-19, 21-28, and 33-36 stand rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,611,839 to E. Kenneth Nwabueze ("Nwabueze"). The Applicants greatly acknowledge the allowance of claims 30-32.

Although the Applicants believe claims 2-11, 12-19, 21-28, and 30-36 are directed to patentable subject matter and are in condition for allowance without amendment. The Applicants have canceled claims 2, 4, 7, 12, 14, 16, 21, 22, 25, and 33-35 and have amended claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, and 36 to include limitations the Examiner has deemed to be allowable subject matter to expedite prosecution of this Application. By making these amendments, the Applicants make no admission concerning the merits of the Examiner's rejection, and respectfully deny any statement or averment of the Examiner not specifically addressed. Particularly, the Applicants reserve the right to file additional claims in this Application or through a continuation patent application of substantially the same scope of originally filed claims 2, 4, 7, 12, 14, 16, 21, 22, 25, and 33-35, and to antedate the above-identified prior art reference. The Applicants respectfully submit that the rejections under 35 U.S.C. §102(e) are moot in view of the amendments to the claims. No new matter has been added.

**ALLOWABLE SUBJECT MATTER:**

Claims 30-32 stand allowed. The Applicants greatly appreciate the Examiner acknowledging that claims 30-32 contain allowable subject matter.

**REJECTION UNDER 35 U.S.C. § 102(e):**

Claims 2-11, 12-19, 21-28, and 33-36 stand rejected under 35 U.S.C. § 102(e) over Nwabueze. The Applicants greatly acknowledge the allowance of claims 30-32.

Although the Applicants believe claims 2-11, 12-19, 21-28, and 30-36 are directed to patentable subject matter and are in condition for allowance without amendment. The Applicants have canceled claims 2, 4, 7, 12, 14, 16, 21, 22, 25, and 33-35 and have amended claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, and 36 to include limitations the Examiner has deemed to be allowable subject matter to expedite prosecution of this Application. The Applicants respectfully submit that the rejections under 35 U.S.C. § 102(e) are moot in view of the amendments to the claims.

The Office Action alleges that Nwabueze discloses a system for optimization using multi-dimensional data. The Applicants have reviewed Nwabueze in detail, particularly looking for a system for optimization using multi-dimensional data, relied upon by the Examiner. However, Nwabueze fails to disclose each and every limitation recited by amended claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, allowable independent claims 30-32, and amended independent claim 36. Thus, the Applicants respectfully submit that claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, 30-32, and 36 patentably distinguish over Nwabueze.

For example, with respect to allowable independent claim 30, this claim recites:

A system for optimization using multi-dimensional data, comprising:  
a server operable to:

using a multi-dimensional data model, organize data stored at one or more data storage locations, the multi-dimensional data model including a plurality of data dimensions each including a hierarchy of members;

receive input from a user specifying a problem instance to be solved using an optimization engine, the problem instance specified by the user in a multi-dimensional format, the optimization engine being unable to solve the problem instance in the multi-dimensional format, the problem instance including:

a problem domain that includes all data in the multi-dimensional data model that is located hierarchically below one or more

specified intersections in the multi- dimensional data model, each intersection identified by specifying a member in each data dimension;  
an evaluation level specified by identifying a particular level in the hierarchy of each data dimension;  
an objective function including a data measure or a combination of data measures to be optimized; and  
one or more problem constraints; and  
communicate the problem instance in the multi-dimensional format; and a transformation module operable to:  
receive the problem instance in the multi-dimensional format;  
transform the problem instance into a format appropriate for the optimization engine, the transformation including parsing the received problem instance to identify pre defined multi-dimensional syntax and translating the multi-dimensional syntax to a syntax appropriate for the optimization engine;  
communicate the transformed problem instance to the optimization engine to be solved;  
receive a solution associated with the problem instance from the optimization engine;  
transform the solution into the multi-dimensional format; and  
communicate the transformed solution to the server.

Allowable independent claims 31, 32, and amended independent claim 36 recite similar limitations. Nwabueze fails to disclose each and every limitation of allowable independent claims 30, 31, 32, and amended independent claim 36.

Thus, the allegation in the present Office Action that Nwabueze discloses all of the claimed features is respectfully traversed. Further, it is noted that the Office Action acknowledges that Nwabueze does not anticipate all of the limitations in allowable independent claim 30. A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if each and every element of a claimed invention is identically shown in that single reference. MPEP § 2131. Applicants respectfully point out that "it is incumbent upon the [E]xaminer to identify wherein each and every facet of the claimed invention is disclosed in the applied reference." Ex parte Levy, 17 U.S.P.Q.2d (BNA) 1461, 1462 (Pat. & Tm. Off. Bd. Pat. App. & Int. 1990). The Applicants respectfully submit that the Office Action has failed to establish a prima facie case of anticipation in allowable independent claim 30 under 35 U.S.C. § 102 with respect to Nwabueze because Nwabueze fails to

identically disclose every element of the Applicants claimed invention, arranged as they are in Applicants claim.

With respect to allowable independent claims 31, 32, and amended independent claim 36 each of these claims includes limitations similar to those discussed above in connection with allowable independent claim 30. Thus, allowable independent claims 31, 32, and amended independent claim 36 are considered patentably distinguishable over Nwabueze for at least the reasons discussed above in connection with allowable independent claim 30. Furthermore, dependent claims 3, 5, 6, and 8-10 which depend from allowable independent claim 30, dependent claims 13, 15, and 17-19 which depend from allowable independent claim 31 and dependent claims 23, 24, and 26-28 which depend from allowable independent claim 32 are also considered patentably distinguishable over Nwabueze. Thus, dependent claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, and 26-28 are considered to be in condition for allowance for at least the reason of depending from an allowable claim.

Thus, for the reasons set forth herein, the Applicants submit that claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, 30-32, and 36 are not anticipated by Nwabueze. The Applicants further submit that claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, 30-32, and 36 are in condition for allowance. The Applicants respectfully submit that the rejections under 35 U.S.C. §102(e) are moot in view of the amendments to the claims. Thus, the Applicants respectfully request that the rejection of claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, and 36 under 35 U.S.C. § 102(e) be reconsidered and that claims 3, 5, 6, 8-10, 13, 15, 17-19, 23, 24, 26-28, 30-32, and 36 be allowed.

#### **THE LEGAL STANDARD FOR ANTICIPATION REJECTIONS UNDER 35 U.S.C. § 102:**

The following sets forth the legal standards for "anticipation."

The events that can lead to anticipation can be divided into the following seven categories, all defined by statute:

1. Prior Knowledge: The invention was publicly known in the United States before the patentee invented it.

2. Prior Use: The invention was publicly used in the United States either (i) before the patentee invented it; or (ii) more than one year before he filed his patent application.

3. Prior Publication: The invention was described in a printed publication anywhere in the world either (i) before the patentee invented it; or (ii) more than one year before he filed his patent application.

4. Prior Patent: The invention was patented in another patent anywhere in the world either (i) before the patentee invented it; or (ii) more than one year before he filed his application.

5. On Sale: The invention was on sale in the United States more than one year before the patentee filed his application.

6. Prior Invention: The invention was invented by another person in the United States before the patentee invented it, and that other person did not abandon, suppress or conceal the invention.

7. Prior U.S. Patent: The invention was described in a patent granted on a patent application filed in the United States before the patentee made the invention.

Each of those seven events has its own particular requirements, but they all have the following requirements in common:

1. Anticipation must be shown by clear and convincing evidence.

2. If one prior art reference completely embodies the same process or product as any claim, the product or process of that claim is anticipated by the prior art, and that claim is invalid. To decide whether anticipation exists, one must consider each of the elements recited in the claim and determine whether all of them are found in the particular item alleged to be anticipating prior art.

3. There is no anticipation unless every one of those elements is found in a *single* prior publication, prior public use, prior invention, prior patent, prior knowledge or prior sale. One may not combine two or more items of prior art to make out an anticipation. One should, however, take into consideration, not only what is expressly disclosed or embodied in the particular item of prior art, but also what inherently occurred in its practice.

4. There cannot be an accidental or unrecognized anticipation. A prior duplication of the claimed invention that was accidental, or unrecognized, unappreciated, and incidental to some other purpose is not an invalidating anticipation.

Those four requirements must be kept in mind and applied to each kind of anticipation in issue. The following additional requirements apply to some categories of anticipation.

1. Prior Knowledge: An invention is anticipated if it was known by others in the United States before it was invented by the patentee. "Known," in this context, means known to the public. Private knowledge, secret knowledge or knowledge confined to a small, limited group is not necessarily an invalidating anticipation. Things that were known to the public only outside the United States are not invalidating anticipation.

2. Prior Use: An invention is anticipated if it was used by others before it was invented by the patentee, or more than one year before the patentee filed his patent application. "Use," in this context, means a public use.

3. Prior Publication: A patent is invalid if the invention defined by the Claims was described in a printed publication before it was invented by the patentee or more than one year prior to the filing date of his application. For a publication to constitute an anticipation of an invention, it must be capable, when taken in conjunction with the knowledge of people of ordinary skill in the art, of placing the invention in the possession of the reader. The disclosure must be enabling and meaningful. In determining whether the disclosure is complete, enabling, and meaningful, one should take into account what would have been within the knowledge of a person of ordinary skill in the art at the time,

and one may consider other publications that shed light on the knowledge such a person would have had.

4. Prior Patent: If the invention defined by the claims was patented in the United States or a foreign country, either before it was invented by the inventor or more than one year before the inventor filed his patent application, then the invention was anticipated. The effective date for this type of anticipation is the date on which two things co-existed: (i) the owner of the referenced patent had the right to enforce that patent; and (ii) the reference patent was available to the public. What was "patented" in the reference patent is determined by what is defined by its claims, interpreted in the light of the general description.

5. On Sale: A patent is invalid if the invention claimed in it was on sale in the United States more than one year prior to the application filing date.

6. Prior Invention: If the invention defined by the claims was invented by another person, in the United States, before it was invented by the inventor, and that other person did not abandon, suppress, or conceal the invention, the invention lacks novelty. A prior invention, even if put in physical form and shown to produce the desired result, is not an invalidating anticipation unless some steps were taken to make it public. However, it is not necessary that the inventor had knowledge of that prior invention.

7. Prior U.S. Application: A patent is invalid for lack of novelty if the invention defined by the claims was described in a United States patent issued on a patent application filed by another person before the invention was made by the inventor. The effective date of a prior application for purposes of this issue is the date on which it was filed in the United States. Foreign-filed patent applications do not apply. If the issued United States patent claims the benefit of more than one United States application, its effective date as an anticipation is the filing date of the first United States application that discloses the invention claimed in that referenced patent.

Experimental Use Exception: The law recognizes that it is beneficial to permit the inventor the time and opportunity to develop his invention. As such there is an

"experimental use" exception to the "public use" and "on sale" rules. Even though the invention was publicly used or on sale, more than one year prior to the application filing date, that does not invalidate the patent, provided the principal purpose was experimentation rather than commercial benefit. If the primary purpose was experimental, it does not matter that the public used the invention or that the inventor incidentally derived profit from it.

When a public use or sale is shown, the burden is on the inventor to come forward with evidence to support the experimental use exception. Only experimentation by or under the control of the inventor qualifies for this exception. Experimentation by a third party, for its own purposes, does not qualify for this exception. Once the invention leaves the inventor's control, its use is a public one, even if further experimentation takes place.

The experimentation must relate to the claimed features of the invention. And it must be for the purpose of technological improvement, not commercial exploitation. If any commercial exploitation does occur, it must be merely incidental to the primary purpose of experimentation. A test done primarily for marketing, and only incidentally for technological improvement, is a public use.



**CONCLUSION:**

In view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and early reconsideration and a Notice of Allowance are earnestly solicited.

Although Applicants believe no fees are deemed to be necessary; the undersigned hereby authorizes the Commissioner to charge any additional fees which may be required, or credit any overpayments, to **Deposit Account No. 500777**.

**Please link this application to Customer No. 53184 so that its status may be checked via the PAIR System.**

Respectfully submitted,

6/29/05  
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